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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,082	09/18/2003	Paul Poh Loh Cheok	200304319-2	8340

7590	09/28/2005

HEWLETT-PACKARD COMPANY
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EXAMINER
CONNOLLY, MARK A

ART UNIT	PAPER NUMBER
2115	

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 August 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>22-31</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>22-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>19 November 2002</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All b)☐ Some * c)☐ None of:

　　　1.☒ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

THOMAS LEE
SUPERVISORY PAT~~~~~~R
TECHNOLOGY C~~~.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 22-31 have been presented for examination.

Drawings

2.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "pointing the host processor to an instruction" found in claims 22 and 26, "changing the microcontroller to a like power state to that of the host processor" found in claims 23 and 27, "shutting down the microcontroller" found in claims 24 and 28 and "transitioning out of the low power state and executing said instruction" found in claims 30 and 31 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 22-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al

[Lee] US Pat No 6405320 in view of Reneris US Pat No 6209088.

5.   Referring to claim 22, Lee teaches the method comprising:

a.   detecting a command to transition a host processor to a low power state [col. 2

lines 51-52].

b.   writing a first sleep type to a first register to specify the low power state for the

host processor [col. 6 lines 1-9 and 38-44, col. 7 lines 38-59, col. 8 lines 24-36].

c.   notifying a microcontroller of the transition command to the host processor [col. 2

lines 52-54].

d.   the host processor writing a second sleep type to a second register that controls

the power state of the microcontroller, wherein said second sleep type is not recognized

by the microcontroller [col. 8 lines 60-64, col. 9 lines 4-6 and 32-40]. Because is a

memory comprising code which is executed by a processor it is interpreted that the BIOS

writing the PM1a register contents into register PM1b which puts the computer system

into a lower power mode is performed by the processor.

e.   changing the power state of the microcontroller [col. 2 lines 53-54 and col. 8 lines 60-64]. Putting the computer system into a lower power mode is interpreted as changing the power state of the microcontroller since the microcontroller is part of the computer system.

Although Lee teaches the method for writing sleep types in a first and second register in order to control the systems power, it is not explicitly taught that an instruction is pointed to that when executed causes the second sleep type to be written into a second register. In summary, Lee does not teach defining a point to in which to suspend instruction execution before transitioning into a lower power state. Reneris explicitly teaches suspending instruction execution before transitioning into a lower power state [col. 5 lines 60-67 and col. 15 lines 49-52]. It would have been obvious to include the teachings of Reneris into the Lee system because it provides a means to safely "pause" the process execution of the computer system and allow the system to sleep in such a way that when the system wakes from the sleep state, process execution can resume where it left off.

6.   Referring to claim 23, Lee teaches changing the microcontroller to a like power state to that of the processor [col. 7 lines 42-59, col. 9 lines 32-40 and 56-60]. In particular, PM1*b* control register defines a single power state and PM1*b* control register is used to control the power states of both the processor and microcontroller.

7.   Referring to claim 24, Lee teaches shutting down the microcontroller [col. 9 lines 49-51].

8.   Referring to claim 25, Lee teaches performing a custodial function [col. 9 lines 26-31].

9.   Referring to claim 30, Reneris teaches transitioning out of a low power state and resuming instruction execution [col. 5 lines 60-67 and col. 15 lines 49-52].

10.   Referring to claims 26-29 and 31, these are rejected on the same basis as set forth

hereinabove. Lee and Reneris teach the method and therefore teach the system performing the
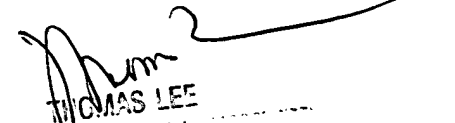
method.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The

examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Connolly
Examiner
Art Unit 2115

mc
September 22, 2005